



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M MS Caulkable Sealer P/N 08855

Product Identification Numbers

FS-9100-3147-5

7000079955

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone: +353 1 280 3555
E Mail: tox.uk@mmm.com
Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

The carcinogenicity classification for titanium dioxide is not applicable based on physical form (material is not a powder).

CLASSIFICATION:

Flammable Liquid, Category 3 - Flam. Liq. 3; H226

Skin Sensitization, Category 1A - Skin Sens. 1A; H317
 Specific Target Organ Toxicity-Repeated Exposure, Category 1 - STOT RE 1; H372
 Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

GHS02 (Flame) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Quartz	14808-60-7	238-878-4	40 - 70
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6	0.1 - 1
Phenol, styrenated	61788-44-1	262-975-0	< 1
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	483-270-6	0.1 - 1
Trimethoxyvinylsilane	2768-02-7	220-449-8	< 1
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		915-687-0	< 0.07

HAZARD STATEMENTS:

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280E	Wear protective gloves.

Response:

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.
P391	Collect spillage.

SUPPLEMENTAL INFORMATION:**Supplemental Hazard Statements:**

EUH211

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

17% of the mixture consists of components of unknown acute oral toxicity.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Quartz	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	40 - 70	STOT RE 1, H372
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[. omega.-[3-(dimethoxymethylsilyl)propoxy]-	(CAS-No.) 151865-59-7	10 - 30	Substance not classified as hazardous
N-ethyltoluene-2-sulphonamide	(CAS-No.) 1077-56-1 (EC-No.) 214-073-3	3 - 7	Acute Tox. 4, H302
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	(CAS-No.) 68515-49-1 (EC-No.) 271-091-4 (REACH-No.) 01-2119422347-43	1 - 5	Substance not classified as hazardous
N-ethyltoluene-4-sulphonamide	(CAS-No.) 80-39-7 (EC-No.) 201-275-1	1 - 5	Acute Tox. 4, H302
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	(EC-No.) 918-167-1	1 - 5	Flam. Liq. 3, H226 Aquatic Chronic 4, H413 Asp. Tox. 1, H304 EUH066
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiybis[12-hydroxyoctadecanamide]	(EC-No.) ELINCS 484-050-2 (REACH-No.) 01-0000020228-74	1 - 5	Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=10
Titanium dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (REACH-No.) 01-2119489379-17	1 - 5	Carc. 2, H351 (inhalation)
Calcium carbonate	(CAS-No.) 471-34-1 (EC-No.) 207-439-9	1 - 5	Substance with a national occupational exposure limit

Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	(CAS-No.) 54068-28-9 (EC-No.) ELINCS 483-270-6	0.1 - 1	Skin Sens. 1B, H317 Repr. 2, H361d Aquatic Chronic 2, H411
Phenol, styrenated	(CAS-No.) 61788-44-1 (EC-No.) 262-975-0	< 1	Skin Sens. 1A, H317 Aquatic Chronic 2, H411
Trimethoxyvinylsilane	(CAS-No.) 2768-02-7 (EC-No.) 220-449-8	< 1	Skin Sens. 1B, H317 Flam. Liq. 3, H226 Acute Tox. 4, H332
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6	0.1 - 1	Acute Tox. 4, H332 Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	(EC-No.) 915-687-0	< 0.07	Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1 Skin Sens. 1A, H317

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.
Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

The most important symptoms and effects based on the CLP classification include:
Allergic skin reaction (redness, swelling, blistering, and itching).

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Titanium dioxide	13463-67-7	UK HSC	TWA(respirable):4 mg/m ³ ;TWA(Inhalable):10 mg/m ³	
Quartz	14808-60-7	UK HSC	TWA(respirable):0.1 mg/m ³	
DUST, INERT OR NUISANCE	471-34-1	UK HSC	TWA(as respirable dust):4 mg/m ³ ;TWA(as inhalable dust):10 mg/m ³	
Limestone	471-34-1	UK HSC	TWA(respirable):4 mg/m ³ ;TWA(as respirable dust):4 mg/m ³ ;TWA(Inhalable):10 mg/m ³ ;TWA(as inhalable dust):10 mg/m ³	

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

Recommended monitoring procedures:Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

8.2. Exposure controls**8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

Eye protection not required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Grey
Odor	Characteristic Particular
Odour threshold	<i>No data available.</i>
Melting point/freezing point	<i>Not applicable.</i>
Boiling point/boiling range	<i>Not applicable.</i>
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	57.6 °C [<i>Test Method:</i> Closed Cup]
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
pH	<i>substance/mixture is non-soluble (in water)</i>
Kinematic Viscosity	705.88 - 1,058.82 mm ² /sec
Water solubility	Nil
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Density	1.7 g/ml [<i>@ 23 °C</i>]
Relative density	1.65 - 1.75 [<i>Ref Std: WATER=1</i>]
Relative Vapor Density	<i>No data available.</i>

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Molecular weight	<i>No data available.</i>
Percent volatile	4 - 8 %

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Water

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg
N-ethyltoluene-2-sulphonamide	Dermal	Rabbit	LD50 > 5,000 mg/kg
N-ethyltoluene-2-sulphonamide	Ingestion	similar compounds	LD50 estimated to be 300 - 2,000 mg/kg
Calcium carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg
N-ethyltoluene-4-sulphonamide	Dermal	Rabbit	LD50 > 5,000 mg/kg
N-ethyltoluene-4-sulphonamide	Ingestion	similar compounds	LD50 estimated to be 300 - 2,000 mg/kg
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Dermal	Rabbit	LD50 > 3,160 mg/kg
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 12.5 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Rat	LD50 > 9,700 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	Dermal	Rat	LD50 > 2,000
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.3

alkandiylbis[12-hydroxyoctadecanamide]			
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Ingestion	Rat	LD50 > 2,000
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 >1.49, <2.44 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Rat	LD50 1,897 mg/kg
Trimethoxyvinylsilane	Dermal	Rabbit	LD50 3,260 mg/kg
Trimethoxyvinylsilane	Inhalation-Vapour (4 hours)	Rat	LC50 16.8 mg/l
Trimethoxyvinylsilane	Ingestion	Rat	LD50 7,120 mg/kg
Phenol, styrenated	Dermal	Rat	LD50 > 2,000 mg/kg
Phenol, styrenated	Ingestion	Rat	LD50 > 2,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Ingestion	Rat	LD50 3,125 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Quartz	Professional judgement	No significant irritation
Calcium carbonate	Rabbit	No significant irritation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Rabbit	Mild irritant
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Rabbit	Minimal irritation
Titanium dioxide	Rabbit	No significant irritation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Rabbit	No significant irritation
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Mild irritant
Trimethoxyvinylsilane	Rabbit	Minimal irritation
Phenol, styrenated	Rabbit	No significant irritation
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Calcium carbonate	Rabbit	No significant irritation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Rabbit	Mild irritant
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Rabbit	Mild irritant
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Corrosive
Trimethoxyvinylsilane	Rabbit	No significant irritation
Phenol, styrenated	Rabbit	Mild irritant
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Guinea	Not classified

	pig	
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Guinea pig	Not classified
Titanium dioxide	Human and animal	Not classified
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	Mouse	Not classified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Multiple animal species	Sensitising
Trimethoxyvinylsilane	Guinea pig	Not classified
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Mouse	Sensitising
Phenol, styrenated	Mouse	Sensitising
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Guinea pig	Sensitising

Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	In Vitro	Not mutagenic
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	In vivo	Not mutagenic
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	In Vitro	Not mutagenic
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	In Vitro	Not mutagenic
Trimethoxyvinylsilane	In vivo	Not mutagenic
Trimethoxyvinylsilane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Quartz	Inhalation	Human and animal	Carcinogenic.
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not available	Not carcinogenic
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Calcium carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation

Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	premat ing & during gestation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Not classified for female reproduction	Rat	NOAEL 927 mg/kg/day	2 generation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Not classified for male reproduction	Rat	NOAEL 929 mg/kg/day	2 generation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Toxic to development	Rat	NOAEL 38 mg/kg/day	2 generation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premat ing into lactation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	28 days
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premat ing into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	premat ing into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premat ing into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premat ing into lactation
Trimethoxyvinylsilane	Inhalation	Not classified for development	Rat	NOAEL 1.8 mg/l	during organogenesis
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Ingestion	Toxic to development	Rat	NOAEL 1.8 mg/kg/day	premat ing into lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Calcium carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation	respiratory system hematopoietic system liver	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.5 mg/l	2 generation

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	endocrine system	Not classified	Rat	NOAEL 686 mg/kg/day	90 days
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	liver kidney and/or bladder heart	Not classified	Rat	NOAEL 500 mg/kg/day	90 days
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 320 mg/kg/day	90 days
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.015 mg/l	90 days
Trimethoxyvinylsilane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL mg/l	14 weeks
Trimethoxyvinylsilane	Inhalation	hematopoietic system eyes	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
Trimethoxyvinylsilane	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	40 days
Trimethoxyvinylsilane	Ingestion	endocrine system hematopoietic system liver immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	40 days

Aspiration Hazard

Name	Value
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Quartz	14808-60-7	Green Algae	Estimated	72 hours	EC50	440 mg/l
Quartz	14808-60-7	Water flea	Estimated	48 hours	EC50	7,600 mg/l
Quartz	14808-60-7	Zebra Fish	Estimated	96 hours	LC50	5,000 mg/l
Quartz	14808-60-7	Green Algae	Estimated	72 hours	NOEC	60 mg/l
Poly[oxy(methyl-1,2-ethanediy)], .alpha.,.al	151865-59-7		Data not available or insufficient for			NA

pha., alpha.-1,2,3-propanetriyltris[.omega.-[3-(dimethoxymethylsilyl)propoxy]-			classification			
N-ethyltoluene-2-sulphonamide	1077-56-1	Green Algae	Analogous Compound	72 hours	ErC50	78 mg/l
N-ethyltoluene-2-sulphonamide	1077-56-1	Rainbow trout	Analogous Compound	96 hours	LC50	80 mg/l
N-ethyltoluene-2-sulphonamide	1077-56-1	Water flea	Analogous Compound	48 hours	EC50	>1,000 mg/l
N-ethyltoluene-2-sulphonamide	1077-56-1	Green Algae	Analogous Compound	72 hours	ErC10	13 mg/l
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Calcium carbonate	471-34-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC10	100 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Green Algae	Estimated	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Green Algae	Estimated	72 hours	NOEL	1,000 mg/l
N-ethyltoluene-4-sulphonamide	80-39-7	Green Algae	Analogous Compound	72 hours	ErC50	78 mg/l
N-ethyltoluene-4-sulphonamide	80-39-7	Rainbow trout	Analogous Compound	96 hours	LC50	80 mg/l
N-ethyltoluene-4-sulphonamide	80-39-7	Water flea	Analogous Compound	48 hours	EC50	>1,000 mg/l
N-ethyltoluene-4-sulphonamide	80-39-7	Green Algae	Analogous Compound	72 hours	ErC10	13 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Activated sludge	Experimental	30 minutes	EC50	>83.3 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Green algae	Experimental	96 hours	EC50	>100 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Green algae	Experimental	96 hours	NOEC	100 mg/l
1,2-Benzenedicarboxylic acid	68515-49-1	Water flea	Experimental	21 days	NOEC	100 mg/l

acid, di-C9-11-branched alkyl esters, C10-rich						
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Water flea	Endpoint not reached	48 hours	EC50	>100 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Common Carp	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Green Algae	Experimental	72 hours	EC50	0.025 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Water flea	Endpoint not reached	21 days	NOEC	>100 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	484-050-2	Green Algae	Experimental	72 hours	NOEC	0.007 mg/l

3M MS Caulkable Sealer P/N 08855

Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Bacteria	Experimental	16 hours	EC50	67 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Fathead minnow	Experimental	96 hours	LC50	168 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green Algae	Experimental	72 hours	EC50	8.8 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Water flea	Experimental	48 hours	EC50	81 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green Algae	Experimental	72 hours	NOEC	3.1 mg/l
Phenol, styrenated	61788-44-1	Activated sludge	Experimental	3 hours	EC50	362 mg/l
Phenol, styrenated	61788-44-1	Green algae	Experimental	72 hours	EC50	1.35 mg/l
Phenol, styrenated	61788-44-1	Medaka	Experimental	96 hours	LC50	5.6 mg/l
Phenol, styrenated	61788-44-1	Water flea	Experimental	48 hours	EC50	4.6 mg/l
Phenol, styrenated	61788-44-1	Green Algae	Experimental	72 hours	NOEC	0.42 mg/l
Phenol, styrenated	61788-44-1	Water flea	Experimental	21 days	NOEC	0.2 mg/l
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Water flea	Estimated	24 hours	EC50	1.3 mg/l
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Water flea	Estimated	21 days	NOEC	0.52 mg/l
Trimethoxyvinylsilane	2768-02-7	Bacteria	Experimental	5 hours	EC10	1.1 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	EC50	>957 mg/l
Trimethoxyvinylsilane	2768-02-7	Rainbow trout	Experimental	96 hours	LC50	191 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	48 hours	EC50	169 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	NOEC	957 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	21 days	NOEC	28 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Activated sludge	Experimental	3 hours	IC50	>=100 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-	915-687-0	Green algae	Experimental	72 hours	EC50	1.68 mg/l

piperidyl sebacate						
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Zebra Fish	Experimental	96 hours	LC50	0.9 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Green algae	Experimental	72 hours	NOEC	0.22 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Water flea	Experimental	21 days	NOEC	1 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Quartz	14808-60-7	Data not available - insufficient			N/A	
Poly[oxy(methyl-1,2-ethanediy)], .alpha.,.alpha.', .alpha."-1,2,3-propanetriyltris[. omega.-[3-(dimethoxymethylsilyl)propoxy]-	151865-59-7	Data not available - insufficient			NA	
N-ethyltoluene-2-sulphonamide	1077-56-1	Analogous Compound Aquatic Inherent Biodegrad.	35 days	CO2 evolution	3 %CO2 evolution/THC O2 evolution	
N-ethyltoluene-2-sulphonamide	1077-56-1	Modeled Biodegradation	28 days	BOD	19 % BOD/ThBOD	Catalogic™
N-ethyltoluene-2-sulphonamide	1077-56-1	Analogous Compound Biodegradation	21 days	Dissolv. Organic Carbon Deplet	50.6 %removal of DOC	similar to 835.3240
Calcium carbonate	471-34-1	Data not available - insufficient			N/A	
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Estimated Biodegradation	28 days	BOD	31.3 % BOD/ThBOD	Non-standard method
N-ethyltoluene-4-sulphonamide	80-39-7	Analogous Compound Aquatic Inherent Biodegrad.	35 days	CO2 evolution	3 %CO2 evolution/THC O2 evolution	
N-ethyltoluene-4-sulphonamide	80-39-7	Modeled Biodegradation	28 days	BOD	25 % BOD/ThBOD	Catalogic™
N-ethyltoluene-4-sulphonamide	80-39-7	Analogous Compound Biodegradation	28 days	Dissolv. Organic Carbon Deplet	50.6 %removal of DOC	similar to 835.3240
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Experimental Biodegradation	28 days	BOD	74 % BOD/ThBOD	OECD 301F - Manometric respirometry
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	484-050-2	Experimental Biodegradation	28 days	CO2 evolution	7 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2

Titanium dioxide	13463-67-7	Data not available or insufficient			N/A	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Hydrolysis		Hydrolytic half-life	1.5 minutes (t 1/2)	Non-standard method
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	39 % weight	Non-standard method
Phenol, styrenated	61788-44-1	Experimental Biodegradation	28 days	BOD	7 % BOD/ThBOD	OECD 301F - Manometric respirometry
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Data not available or insufficient			N/A	
Trimethoxyvinylsilane	2768-02-7	Experimental Biodegradation	28 days	BOD	51 % BOD/ThBOD	OECD 301F - Manometric respirometry
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	38 % weight	OECD 301E - Modif. OECD Screen

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.', .alpha."-1,2,3-propanetriyltris[. omega.-[3-(dimethoxymethylsilyl)propoxy]-	151865-59-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N-ethyltoluene-2-sulphonamide	1077-56-1	Analogous Compound Bioconcentration		Log Kow	1.8	
Calcium carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Estimated BCF - Rainbow Trout		Bioaccumulation factor	2500	Non-standard method
N-ethyltoluene-4-sulphonamide	80-39-7	Analogous Compound Bioconcentration		Log Kow	1.8	
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	Estimated BCF- Carp	56 days	Bioaccumulation factor	<14.4	OECD 305E - Bioaccumulation flow-through fish test
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	484-050-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF- Carp	42 days	Bioaccumulation factor	9.6	Non-standard method
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Phenol, styrenated	61788-44-1	Experimental BCF - Rainbow Trout	10 days	Bioaccumulation factor	10395	
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Trimethoxyvinylsilane	2768-02-7	Estimated Bioconcentration		Log Kow	-2	Non-standard method
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated BCF-Carp	56 days	Bioaccumulation factor	31.4	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
N-ethyltoluene-2-sulphonamide	1077-56-1	Modeled Mobility in Soil	Koc	114 l/kg	Episuite™
N-ethyltoluene-4-sulphonamide	80-39-7	Modeled Mobility in Soil	Koc	115 l/kg	Episuite™
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandylbis[12-hydroxyoctadecanamide]	484-050-2	Experimental Mobility in Soil	Koc	>4 l/kg	OECD 121 Estim. of Koc by HPLC
Phenol, styrenated	61788-44-1	Estimated Mobility in Soil	Koc	≥2 l/kg	Episuite™
Trimethoxyvinylsilane	2768-02-7	Estimated Mobility in Soil	Koc	650 l/kg	Episuite™
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Mobility in Soil	Koc	200,000 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are

complied with and always use a licensed waste contractor.

EU waste code (product as sold)

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1133	UN1133	UN1133
14.2 UN proper shipping name	ADHESIVES	ADHESIVES	ADHESIVES
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	III	III
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Tunnel Code	(E)	Not applicable.	Not applicable.
ADR Classification Code	F1	Not applicable.	Not applicable.
ADR Transport Category	4	Not applicable.	Not applicable.
ADR Multiplier	0	0	0
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Quartz	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

<u>Ingredient</u>	<u>CAS Nbr</u>
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1

Restriction status: listed in REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

Global inventory status

Contact 3M for more information.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H351i	Suspected of causing cancer by inhalation.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:

EU Section 09: pH information information was added.
Section 1: Emergency telephone information was modified.
CLP: Ingredient table information was modified.
Label: CLP Precautionary - Disposal information was deleted.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: CLP Supplemental Hazard Statements information was added.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: Substance not applicable information was added.
Section 04: First Aid - Symptoms and Effects (CLP) information was added.
Section 04: Information on toxicological effects information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 9: Density information information was modified.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Multiplier – Main Heading information was added.
Section 14 Multiplier – Regulation Data information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.

Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport Category – Main Heading information was added.
Section 14 Transport Category – Regulation Data information was added.
Section 14 Transport in bulk – Regulation Data information was added.
Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.
Section 14 Tunnel Code – Main Heading information was added.
Section 14 Tunnel Code – Regulation Data information was added.
Section 14 UN Number Column data information was added.
Section 14 UN Number information was added.
Section 15: Carcinogenicity information was modified.
Section 15: Regulations - Inventories information was added.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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